

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17****RIN 1018-AB42****Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for *Cyanea superba*, a Hawaiian Plant****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) proposes to determine a plant, *Cyanea superba* (no common name), to be endangered pursuant to the Endangered Species Act of 1973, as amended (Act). This plant is known only from two small populations located on the island of Oahu, Hawaii. Both populations are vulnerable to any substantial habitat alteration and face clear and present threats from fire, feral pigs, and aggressive, exotic plant infestations on and near the sites where they occur. A determination that *Cyanea superba* is endangered would implement the Federal protection and recovery provisions provided by the Act. Critical habitat is not proposed. Comments and materials related to this proposal are solicited.

**DATES:** Comments from all interested parties must be received by September 17, 1990. Public hearing requests must be received by August 31, 1990.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, Room 8307, P.O. Box 50167, Honolulu, Hawaii 96850. Comments and materials received will be available for

public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Ernest F. Kosaka, Field Supervisor, at the above address at 808-541-2749, or FTS 551-2749.

**SUPPLEMENTARY INFORMATION:****Background**

*Cyanea superba* was first collected on Oahu in 1817 by Adelbert Chamisso, botanist with the Romanzoff Expedition, and was placed by him in the genus *Lobelia* (Chamisso 1833). No information on the collecting locality was given other than the island. Gray (1861) later transferred the species to the endemic genus *Cyanea*. Hillebrand collected the plant in the "Gulches of Makaleha on Mt. Kaala," Waianae Mountains, Oahu. He collected it again in 1870; there were no further documented sightings of the species until its rediscovery in the Waianae Mountains in 1971. Presently it is known from 2 small populations totaling fewer than 20 individual plants. A recently reported third population appears to be based on a misidentification (Hawaii National Area Reserves System 1988; John Obata, plant collector, Steven Perlman, botanist, and David Smith, biologist, pers. comms., 1990).

A second subspecies was discovered on the lower slopes of the Niu and Wailupe Valleys in the Koolau Mountains, Oahu, by Dr. Hillebrand's son and J.M. Lydgate sometime prior to 1871. The vegetation of this area has since been destroyed by grazing cattle, and the subspecies has not been collected since 1932.

This perennial plant is a member of the bellflower family (Campanulaceae) and is clearly distinguished and geographically isolated from its closest relatives. It differs from other *Cyanea* in the area by the length and width of the leaves. The closest related species on the island of Oahu is 30 miles away in the Ko'ala Mountains (Obata and Smith 1981). *Cyanea superba* grows to 8 meters (20 feet) tall, and has a terminal rosette of large leaves each 50 to 100 centimeters long and 10 to 20 centimeters wide (20 to 40 inches by 4 to 8 inches) atop a simple, unbranched trunk. Its numerous white or creamish flowers are in pendent inflorescences hanging 20 to 35 centimeters (8 to 14 inches) below the leaves (Lammers 1990).

*Cyanea superba* grows in the understory on sloping terrain on a well drained, rocky substrate between 535 and 700 meters (1760 and 2200 feet) in

elevation. The understory is heavily shaded by canopy species including *Aleurites moluccana* and *Pisonia brunoniana*, but is open. *Cyanea superba* does not grow in areas subject to direct sunlight. The open, shaded understory provides an environment conducive to invasion by aggressive, exotic species (Obata and Smith 1981). One population is on State land in Pahole Gulch, while the other grows on Federal property in Kahanahaiki Valley, Waianae Mountains, Oahu, Hawaii.

Probably the greatest immediate threat to the survival of this species is the degradation of its habitat due to the introduction of alien plants and animals. The potential of destruction by wildfires generated in a nearby military firing range, damage directly to the plants and their habitat by feral pigs, and competition for light by aggressive exotic plant species also are major threats. The plants are confined to 2 small areas of 167 square meters (1800 square feet) and 56 square meters (600 square feet). The restricted range of this plant makes it vulnerable to even small, local, environmental disturbances and a single incident could destroy a significant percentage of the known individuals (Obata and Smith 1981). Additionally, the limited gene pool may depress reproductive vigor.

Federal Government action on this species began as a result of Section 12 of the Act, which directed the Secretary of the Smithsonian Institution to prepare a report on plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the Federal Register (40 FR 27823) accepting the report as a petition within the context of section 4(c)(2) (now section 4(b)(3)(A)) of the Act, and giving notice of its intention to review the status of the plant taxa named therein. In this and subsequent notices, *Cyanea superba* was treated as under petition for listing as endangered. As a result of this review, on June 16, 1976, the Service published a proposed rule in the Federal Register (41 FR 24523) to determine approximately 1,700 vascular plant species, including *Cyanea superba*, to be endangered pursuant to section 4 of the Act. General comments received in relation to the 1976 proposal were summarized in an April 26, 1978, Federal Register publication which also determined 13 plant species to be endangered or threatened (43 FR 17909). In 1978, amendments to the Act required that all proposals over 2 years old be withdrawn. A 1-year grace period was

given to proposals already over 2 years old. On December 10, 1979, the Service published a notice in the Federal Register (44 FR 70796) of the withdrawal of that portion of the June 16, 1976, proposal that had not been made final, along with four other proposals that had expired. The Service published an updated Notice of Review for plants on December 15, 1980 (45 FR 82480), including *Cyanea superba* as a Category 1 candidate, meaning that the Service had substantial information indicating that proposing for listing was appropriate. Section 4(b)(3)(B) of the Act, as amended, requires the Secretary to make findings on certain pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments to the Act requires all petitions pending on October 1, 1982, be treated as having been newly submitted on that date. The latter was the case for *Cyanea superba* because the Service had accepted the 1975 Smithsonian report as a petition. On October 13, 1983, the Service found that the petitioned listing of these species was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act; notification of this finding was published on January 20, 1984 (49 FR 2465). Such a finding requires the petition to be recycled, pursuant to section 4(b)(3)(C)(i) of the Act. The finding was reviewed in October of 1984, 1985, 1986, 1987, 1988, and 1989. Publication of the present proposal constitutes the final 1-year finding.

#### Summary of Factors Affecting the Species

Section 4 of the Act and regulations (50 CFR part 424) promulgated to implement the Act set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Cyanea superba* (Cham.) A. Gray are as follows:

##### A. The present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

*Cyanea superba* is currently known from 2 small populations comprising less than 20 plants and covering a total 223 square meters (2,400 square feet) in the county of Honolulu, Island of Oahu, Hawaii. Its previous range is unknown due to inadequate information by early collectors. The restricted range of the species makes it vulnerable to habitat alteration. Wildfires, feral pig activity, and aggressive exotic weed invasions

all threaten its continued existence (Obata and Smith 1981). In March and April, 1990, pigs were seen and "ground rooting" by pigs was noted among the *C. superba* plants at both populations (S. Perlman and D. Smith, pers. comms., 1990). In this species' steep habitat, erosion caused by the ground-disturbing activities of feral pigs or humans is a potential threat (D. Smith, pers. comm., 1990). In addition, partially fallen trees directly upslope of the Kahanahaiki population as of April, 1990, threatened to fall or slide onto the population (D. Smith, pers. comm., 1990). Crowding by exotics occurs principally from invasion by *Psidium cattleianum* and *Schinus terebinthifolius*. Low growing *Oplismenus hirtellus* and *Rubus rosaefolius* may prevent seedling establishment (Obata and Smith 1981). Fire spreading from the adjacent Makua artillery range impact area could potentially threaten this species.

##### B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Not known to be a factor, but unrestricted scientific collecting or excessive visits resulting from increased publicity could seriously affect the species. Human-caused erosion on the steep slopes is a particular concern (D. Smith, pers. comm., 1990). Also, pigs are likely to follow human trails to the population (D. Smith, pers. comm., 1990).

##### C. Disease or Predation

Due to its extreme rarity, little is known about this species or its predators. No obvious damage by diseases or pests is evident. Uprooting and possible consumption by feral pigs is an immediate threat to these two very small colonies. Pigs may be responsible for knocking over one *Cyanea* plant in April, 1990 (D. Smith, pers. comm., 1990). The type description of the species mentions damage to the flowers by unknown insect larvae (Obata and Smith 1981).

##### D. The Inadequacy of Existing Regulatory Mechanisms

One population of the species is found within a State forest reserve. State regulations prohibit the removal, destruction, or damage of plants found on these lands. However, due to limited personnel, the regulations are difficult to enforce. Hawaii's Endangered Species Act (HRS, Sect. 195D-4(a)) states, "Any species of wildlife or wild plant that has been determined to be an endangered species pursuant to the Endangered Species Act (of 1973) shall be deemed to be an endangered species under the

provisions of this chapter \* \* \* Further, the State may enter agreements with Federal agencies to administer and manage any area required for the conservation, management, enhancement, or protection on endangered species (HRS, Sect. 195D-(c)). Funds for these activities could be made available under Section 6 of the Act (State Cooperative Agreements). Therefore, listing of this plant would reinforce and supplement the protection available to the species under State law. The Act also would offer additional protection to the species, as it is now a violation of the Act if any person removes, cuts, digs up, damages or destroys an endangered plant in an area not under Federal jurisdiction in knowing violation of any State law or regulation or in the course of any violation of a State criminal trespass law.

#### *F. Other Natural or Manmade Factors Affecting Its Continued Existence.*

The extremely small size of the populations increases the potential for extinction from stochastic events. The limited gene pool may depress reproductive vigor, or a single natural or man-caused environmental disturbance could destroy a significant percentage of the known extant individual plants. Over the past 12 years, the Pahole population declined sharply from 50 to as few as 10 individuals (Hawaii Heritage Program 1989; D. Smith, pers. comm., 1990). When last surveyed in April 1990, 12 plants were counted (Patricia Welton, botanist, pers. comm. 1990). While the Kahanahaiki population has fluctuated between 7 and 19 individuals over the past 14 years, only 7 plants were seen when it was last surveyed, in April, 1990 (Hawaii Heritage Program 1989; J. Obata, S. Perlman, and D. Smith, pers. comm., 1990). Furthermore, the population structure at Kahanahaiki (all plants over 6 feet tall) indicates that successful regeneration is not taking place (D. Smith, pers. comm., 1990).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Cyanea superba* as endangered. Only 2 populations with a total of less than 20 individuals remain in the wild, and these face threats of fires, pig damage, competition from non-native plants, and general habitat degradation. Because this species is in danger of extinction throughout all or a significant portion of

its range, it fits the definition of endangered as defined in the Act.

#### **Critical Habitat**

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time a species is proposed to be endangered or threatened. The Service finds that designation of critical habitat is not presently prudent for this species at this time. Such a determination would result in no known benefit to the species. The publication of descriptions and maps required in a proposal for critical habitat would increase the degree of threat from taking or vandalism because live specimens of *Cyanea superba* would be of interest to curiosity seekers or rare plant collectors. Also, as the plants grow on steep slopes, visits to the area could result in severe erosion problems, an additional threat to the species. Therefore, the Service finds that designation of critical habitat for this species is not prudent at this time.

#### **Available Conservation Measures**

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States, and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. Since *Cyanea superba* is known to occur on State land, cooperation between Federal and State agencies is necessary to insure its continued existence and to provide for its recovery. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below:

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402 section 7(a)(4) of the Act requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of

proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. One population of *Cyanea superba* is on Federal land under the jurisdiction of the Department of Defense. The plants are growing near the top of a ridge backing a valley used as a live ordnance impact area. If the species is listed as endangered, the Department of Defense would be required to enter into consultation with the Service before undertaking or permitting any action that may affect the plants.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plants. With respect to *Cyanea superba* all trade prohibitions of Section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to import or export; transport in interstate or foreign commerce in the course of a commercial activity; sell or offer for sale in interstate or foreign commerce; or to remove and reduce to possession this species from areas under Federal jurisdiction; maliciously damage or destroy the plant on any such area, or remove, cut, dig up, or damage or destroy the plant on any other area in knowing violation of any State law or regulation or in the course of any violation of a State criminal trespass law. Certain exceptions can apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered plant species under certain circumstances. It is anticipated that few, if any, trade permits would ever be sought or issued, since the species is not in cultivation nor common in the wild. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 432, Washington, DC 22203 (703-358-2104).

**Public Comments Solicited**

The Service intends that any final rule adopted will be accurate and as effective as possible in the conservation of endangered or threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposed rule are hereby solicited. Comments particularly are sought concerning the following:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Cyanea superba*;

(2) The location of any additional populations of *Cyanea superba* and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range and distribution of this species; and

(4) Current or planned activities in the subject area and the possible impacts on *Cyanea superba*.

Any final decision on this proposal concerning *Cyanea superba* will take into consideration the public comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be

made in writing to the Field Supervisor (see ADDRESSES section).

**National Environmental Policy Act**

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined pursuant to the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

**References Cited**

Chamisso, L.A. 1833. *Lobeliaceae*: in Chamisso, L.A., and D.F.L. von Schlechtendal, *De plantis in expeditione speculatoria Romanoffiana observatis*. *Linnaea* 8:201-223.

Cray, A. 1861. *Notes on Lobeliaceae*. *Goodeniaceae*, &c. of the collection of the U.S. South Pacific Exploring Expedition. *Proc. Amer. Acad. Arts* 5:146-152.

Hawaii Heritage Program. 1989. *Element Occurrence Records for Cyanea superba*. PDCAMO42C1.004, .006, and .009, dated June 8-9, 1989. Honolulu. Unpubl. 5pp.

Hawaii Natural Area Reserves System. 1988. *Plant survey of the Pahole Natural Area Reserve*. Rep. no. 2. May 1988. Division of Forestry and Wildlife, Department of Land and Natural Resources. Honolulu, Hawaii. Unpubl.

Lammers, T.G. 1990. *Campanulaceae*: in Wagner, W.L., D.R. Herbst, and S.H. Schner, *Manual of the flowering plants of Hawaii*. University of Hawaii Press and Bishop Museum Press, Honolulu, pp. 420-489.

Obata, J.K. and C.W. Smith. 1961. Unpublished status survey of *Cyanea*

*superba*. U.S. Fish and Wildlife Service. 31 pp.

**Author**

The primary author of this proposed rule is Dr. Derral R. Herbst, Office of Environmental Services, U.S. Fish and Wildlife Service, Pacific Islands, 300 Ala Moana Blvd., Room 6307, P.O. Box 50157, Honolulu, Hawaii 96850 (808-541-2749 or FTS 551-2749).

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and record-keeping requirements, Transportation.

**Proposed Regulation Promulgation**

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

**PART 17—(AMENDED)**

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1543; 16 U.S.C. 4201-4245; Public Law 99-625, 100 Stat. 3500; unless otherwise noted.

2. It is proposed to amend § 17.12(h) by adding the following, in alphabetical order under the family Campanulaceae, to the List of Endangered and Threatened Plants:

**§ 17.12 Endangered and threatened plants.**

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Campanulaceae—Bellflower family:						
<i>Cyanea superba</i>	No common name	U.S.A. (HI)	E		NA	NA

Dated: May 31, 1990.

Richard N. Smith

Acting Director, U.S. Fish and Wildlife Service.

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**DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration****50 CFR Part 646**

RIN 0848-AC96

**Snapper-Grouper Fishery of the South Atlantic**

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

**ACTION:** Notice of availability of an amendment to a fishery management plan, and request for comments.

**SUMMARY:** NOAA issues this notice that the South Atlantic Fishery Management Council (Council) has submitted Amendment 2 to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic (FMP) for Secretarial review and is requesting comments from the public.

**DATES:** Comments will be accepted until September 10, 1990.